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The escaping price of natural gas

By David R. Francis | Staff writer of The Christian Science Monitor

The United States is skating on the edge of another big jump in natural-gas prices this spring - perhaps even a shortage that, depending upon the weather and its severity, could leave residents shivering and cause some industrial customers to curtail operations.

Analysts describe the situation with varying degrees of alarm, from "shaping up for an unmitigated disaster" to "tight" on supplies. Last week, Alan Greenspan, chairman of the Federal Reserve, spoke of his "chronic concern" about how a sharp spike in natural-gas prices would affect the economy.

Most Americans would quickly feel the effects of a severe shortage - and subsequent price hike. Natural-gas utilities, with 64 million customers in the US, provide 24 percent of all energy consumed. Their gas heats and cools millions of homes, and increasingly is burned to generate electricity. Natural gas is both a fuel and a feedstock for the nation's $460 billion chemical industry with its 1 million employees.

"The problem is awfully serious," says Matthew Simmons, head of Simmons & Co. in Houston, an investment bank specializing in the energy industry. "It's shaping up for an unmitigated disaster."

Driving the concern are data suggesting that natural-gas production in the US is tumbling faster than anticipated. As a result, environmentalists, industry representatives, and others are marshalling their arguments about what needs to be done to stave off a crisis. Ideas range from pushing for greater conservation and efficiency to opening new areas for drilling to importing more liquid natural gas (LNG).

Mr. Simmons and others say the US confronts a problem not only in the immediate future, but is likely to see natural-gas shortages for years to come. In a September report, the National Petroleum Council warned that the US is on a course to pay an additional $1 trillion in natural-gas costs over the next 20 years as a result of shortages.

Paul Wilkinson, policy vice president of the American Gas Association, sees a "tight" gas supply for several years. Natural-gas production in the lower 48 states dropped half a percentage point (or less) in 2003, and he expects a "modest" increase in gas production over the next few years.

Simmons, by contrast, believes gas production in the US and Canada has already peaked. That means the US will become increasingly dependent on imported LNG - just as its dependence on imported oil has grown, he says. Imported oil now accounts for 60 percent of US oil consumption.

As partial validation of his concern about gas supplies, Simmons cites a new study by

FirstEnergy Capital, a research firm in Calgary. Using new data, the company found that natural-gas production in the Gulf of Mexico has declined from about 14 billion cubic feet per day in 2001 to 11.3 Bcf/d in May 2003. The Gulf provides 23 percent of all US natural-gas output.

"Essentially it looks as if the Gulf is in fairly sharp decline," says Martin King, author of the FirstEnergy study. He calls it "a wake-up call."

Simmons suspects Gulf output could be as low as 9.5 billion Bcf/d by now, as gas wells tend to peter out faster than do oil wells.

With this situation, the nation is likely to face even more intense debate on the best ways to meet energy needs in the future.

Environmentalists say the priority should be on conservation; greater efficiency of appliances, lighting, and homes; and boosting renewable energy resources, such as wind, solar, or biological.

The gas and chemical industries, for their part, want the US government to ease restrictions on drilling for gas and oil in offshore waters, including the eastern Gulf and Atlantic shelves, and in the inner Rocky Mountains. They urge bringing gas south from Alaska. They see a need to speed up construction of more terminals for importing LNG by tanker. Currently there are four.

Though Simmons refutes claims that conservation alone can cure the situation, he welcomes measures that would both reduce the demand for energy and increase its supply. "We are in a crisis," he says.

Many in the gas industry would welcome passage of the evolving energy bill now before Congress. But not everyone in corporate America is on board.

In recent days, the bill has been stripped of provisions that would have enlarged the areas that could be drilled for natural gas - areas which possibly include about 40 percent of US usable gas reserves, complains Greg Lebedev, president of the American Chemistry Council.

Because of today's high gas prices, Mr. Lebedev says, America's chemical industry - one that has been the biggest and most competitive in the world for decades - has become uncompetitive and could be "gutted" in the years ahead.

"We are trying to stabilize the industry so it stays in the US," he says. Already, some global chemical firms have shifted production to countries where gas prices are lower.

Meanwhile, analysts are trying to get a bead on whether the gas supply is adequate for what's left of this year's heating season. Each week, they pore over a natural-gas storage report from the Department of Energy - and then guess at the future price. The price of gas has been volatile, running about $2 per million BTUs (British thermal units) a few years ago to as high as $10 in shortage-induced spikes.

"Weather is the most decisive factor," says Michael Stoppard, an expert with Cambridge Energy Research Associations, a Cambridge, Mass., adviser on energy to businesses.

Seven weeks of cold weather lie ahead. If it's a deep freeze, natural-gas supplies could be stretched and prices could soar. If prices jump high enough, many industrial firms voluntarily shut down temporarily, leaving gas utilities more capacity to serve residential users.

But that didn't happen in large measure during a price bubble last spring, Simmons says. Only a cool summer, weakening the demand for airconditioning, enabled gas producers to build up enough underground gas storage for this winter - so far. "That [weather] bailed us out," he says.

Another help was a doubling of LNG imports last year. Yet LNG still amounts to only about 1 percent of total gas consumption.

Mr. Stoppard sees a huge business opportunity for imports of LNG - gas cooled to minus 260 degrees F. to make it liquid and suitable for shipment in specialized tankers.

But ramping up LNG imports is expensive and will face "not in my backyard" opposition. A new terminal in the US costs $300 million to $1 billion, depending on its capacity, says Stoppard. The cost at the supply end - gas wells, pipelines, a liquification plant, and ships - could run $6 billion to $8 billion.

At least 30 LNG projects have been announced in North America. But Stoppard figures four or five large regasification terminals will actually be built in the US.

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